

CNY 162 [USD 22] million, CNY 152 [USD 21] million, CNY 114 [USD 16] million, CNY 100 [USD 14] million and CNY 88.11 [USD 12] million in the next 1–5 years, respectively. The increased medical insurance expenditure accounts for 0.091, 0.085, 0.064, 0.056, and 0.049 percent of the annual medical insurance expenditure in the next 1–5 years, respectively, which is assumed to be equivalent to the expenditure in 2018 of CNY 1782.2 [USD 251] billion.

**Conclusions.** The budget impact of adalimumab for AS on medical insurance expenditure is limited, and including adalimumab in the medical insurance catalogue can reduce the burden on individuals, enrich treatment options, and satisfy clinical needs better.

### PP391 Economic Analysis Of Treatment For Spinal Muscular Atrophy: A Scoping Review

Chengaxin Duan ([dcaxin@163.com](mailto:dcaxin@163.com)), Binyan Sui, Kun Zhao, Dandan Ai and Qian Xu

**Introduction.** Spinal muscular atrophy (SMA) is a rare, life-threatening, and seriously debilitating neuromuscular disorder, which has a heavy burden on patients, caregivers and the health system. Technological advances have improved clinical effect, but have also increased the financial burden. There is limited information in the literature on the resource utilization and economic burden of SMA. Our research aims to summarize the current literature on resource use, cost and economic evaluations of treatments for SMA, to inform further research and policy decision making.

**Methods.** Databases, including PubMed, Embase, Cochrane Library and CRD Database, were searched from inception. Two reviewers undertook title and abstract screening followed by full-text screening, and any disagreement was resolved in consensus. Data extraction was conducted using a customized form. Included studies were summarized using narrative synthesis structured around general and economic characteristics. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were adhered to where applicable.

**Results.** We reviewed 552 abstracts and included twenty-six from 2015 to 2019. Four-fifths were published in the United States and Europe. Five full economic evaluations and one budget impact analysis compared nusinersen with AVXS-101 or best supportive care, and the remaining evaluated the economic burden of SMA. The most common outcomes were healthcare resource utilization and direct medical costs, only a few studies evaluated direct non-medical costs or indirect cost.

**Conclusions.** SMA patients have significant medical expenditures and high utilization of healthcare services, including nusinersen-treated patients. The results highlight the substantial burden of treatment for SMA, not only for patients but also for their caregivers. SMA represents a significant hidden cost that society should be made aware of, and that should be considered in the design, implementation and evaluation of support programs for people who suffer from this disease and their families, as well as in the economic evaluation of new treatments.

### PP399 Analysis Of Referral Patterns To Specialized Centers In Idiopathic Pulmonary Fibrosis To Define A New Regional Care Pathway

Rossella Di Bidino ([rossella.dibidino@policlinicogemelli.it](mailto:rossella.dibidino@policlinicogemelli.it)), Luca Richeldi, Paola Rogliani, Alfredo Sebastiani, Alberto Ricci, Francesco Varone and Americo Cicchetti

**Introduction.** Idiopathic pulmonary fibrosis (IPF) is a fatal lung disease. Due to insufficient awareness of the disease, and the lack of specificity of clinical and physiological signs, the diagnosis of IPF is often delayed. In the Lazio Region (Italy) four reference centers manage patients with IPF. The objective of this analysis is to support the definition of a new regional care and therapeutic pathway (Percorso Diagnostico Terapeutico Assistenziale [PDTA]) for IPF to anticipate the moment of diagnosis by reference centers. The delayed referral to specialized centers has clinical consequences both in terms of survival and access to treatments.

**Methods.** A survey collected aggregated evidence on factors associated with referral patterns to specialized centers for IPF. Its content was defined on the basis of a literature search, the experience of involved clinicians, and hospital data sources. The survey considered patients diagnosed with IPF by the network of reference centers from 2014 to 2018. Aggregated data on the pre-diagnosis pathway and evidence on organizational features of each reference center were collected.

**Results.** Patients with a confirmed diagnosis of IPF increased from 2014 (n = 81) to 2018 (n = 344). A similar trend emerged considering only older patients. Incidence rates reached 11.33 cases per 100,000 residents in 2018. The majority of patients had a diagnosis in time to access to available treatments (87% in 2018). The number of specialists in multidisciplinary teams didn't change in a significant way. GPs, pneumologists, and IPF centers emerged as the pillar of the de-facto PDTA.

**Conclusions.** A new regional care and therapeutic pathway has been proposed to improve treatment of IPF. The first goal is to improve interaction among GPs, pneumologists, and IPF centers along the natural course of the disease. Criteria for referral to IPF centers has been defined (i.e. high-resolution computed tomography) as well as for adoption of a hub-and-spoke approach based on telemedicine.

### PP400 Cost-Effectiveness Analysis Of Adding Bedaquiline To Drug Regimens For Multidrug-Resistant Tuberculosis Treatment In China

Fan Zhang ([zhangfan514c@gmail.com](mailto:zhangfan514c@gmail.com)), Yuehua Liu, Zhao Liu, Zining Guo, Junting Yang and Kun Zhao

**Introduction.** According to the World Health Organization, there were approximately 0.5 million new cases of rifampicin-

resistant tuberculosis in 2018, of which 78 percent were multidrug-resistant tuberculosis (MDR-TB), and China has one of the largest shares of the global burden (14%). In recent years, the Chinese government has made progress in TB control and prevention, but for MDR-TB, treatment options are still limited and expensive, and novel drugs are not always available. This research aims to evaluate the cost-effectiveness of adding bedaquiline to a background regimen (BR) of drugs for MDR-TB treatment in China, and to provide evidence for government to improve public health policies.

**Methods.** A cohort-based Markov model was developed to evaluate the incremental cost-effectiveness ratio (ICER) of bedaquiline plus BR (BBR) versus BR alone in MDR-TB treatment, over a 10-year time horizon. Data were sourced from a phase II clinical trial, real-world data in China, published literature, and expert opinion. Outcomes were evaluated in quality-adjusted life years (QALYs) and life-years gained (LYG). The discount rate was 3.5%. Probabilistic and deterministic sensitivity analyses were conducted.

**Results.** The discounted costs per person for BBR was CNY 135,706 [USD 19,172], compared with CNY 92,465 [USD 13,063] for BR. The discounted utility per person for BBR was also higher than that for BR (3.943 QALYs versus 3.193 QALYs). The ICER of BBR was CNY 58,096 [USD 8,208]/QALY, which was lower than the willingness-to-pay threshold of CNY 212,676 [USD 30,046] (three-times the gross domestic product per capita). Therefore, BBR was considered to be cost-effective. The sensitivity analysis confirmed the robustness of the results. BBR remained cost-effective in the sensitivity analysis, with a 77.2 percent probability of being cost-effective versus BR.

**Conclusions.** In China, bedaquiline is not included in the National Reimbursement Medicine List, which results in a heavy financial burden for MDR-TB patients. From this study, BBR was cost-effective by significantly reducing time to sputum culture conversion and increasing QALYs and LYGs, which offset the higher drug costs.

## PP404 Effect Evaluation Of Two Family Doctor Contracting Service Models On Diabetic Patients: A Real-World Study In Chengdu, China

Li Zhou, Xingyue Zhu, Hongyuan Liu, Yanli Huang and Ming Hu ([huming@scu.edu.cn](mailto:huming@scu.edu.cn))

**Introduction.** To strengthen the care capacity of primary facilities, China has vigorously promoted the construction of a hierarchical medical system and a family doctor care system. In July 2017, a family doctor care plan was launched in an urban district of Chengdu, Sichuan Province, and two family doctor contracting service models were adopted, one provided a basic-service package and the other a paid-service package. In order to evaluate the effect of different models on diabetic patients, this study conducted a real world study based on the district healthcare database.

**Methods.** Diabetic patients who contracted family doctor services January 2018 to January 2019 as reported in the database were

enrolled in the paid- or basic-service group. Propensity score matching (PSM) was conducted to balance the distribution of covariances between the groups. The results of the first and last examination of glycosylated hemoglobin, low-density lipoprotein cholesterol (LDL-C), systolic and diastolic blood pressure in the groups were compared by independent sample t-test and chi-square test.

**Results.** Included were 4,871 patients in basic-service and 394 patients in paid-service. In both groups the total control rates of blood pressure, glycosylated hemoglobin and LDL-C at the last physical examination were 43.67, 79.28 and 51.11 percent, respectively, a significant increase from pre-test. The combined control rates of HbA1c, LDL-C and blood pressure in the basic- and paid-service group were 20.76% and 22.37%, respectively. After PSM, there was no significant difference between the groups.

**Conclusions.** Up to now, there is no significant difference between basic-service and paid-service family doctor contracting service models in improving the comprehensive control rate of diabetic patients. The possible reasons may be that the quality and content of paid-service is not as good as expected, the period of implementation is not long enough and the sample size of paid-service patients is limited.

## PP406 Academic Detailing For Judges: Concepts Of Evidence-Based Medicine And Health Policies Adopted In Brazil

Marcus Carvalho Borin ([marcusborin@gmail.com](mailto:marcusborin@gmail.com)), Carla Barbosa Morais Alves, Nelio Gomes Ribeiro Junior, Melissa de Fátima Guimarães, Francisco de Assis Acurcio, Juliana Álvares-Teodoro and Augusto Afonso Guerra Junior

**Introduction.** The Brazilian health system has not been able to enforce the constitutional Right to Health for the entire population, leaving litigation as the last alternative for the fulfillment of the right. In order to harmonize and underpin the decision making of federal judges, an Academic Detailing (AD) program with concepts of evidence-based medicine and health policies for federal judges will be conducted nationwide in Brazil. AD is a strategy to provide information, combining an interactive outreach approach with the best evidence. This study reports the method used to define key messages to be used during visits.

**Methods.** Government, federal judges and academy representatives were invited to a workshop on health litigation in Brazil. They were divided into six groups to discuss five hypothetical scenarios. In each scenario, groups listed two possible key messages to disseminate during AD, addressing the legal, scientific, economic or ethical dimensions. After the definition, a vote was taken, according to the importance that each participant attributed to them (1 to 10), and then a score was generated.

**Results.** Of the thirty-one participants, five were from the judiciary, three prosecutors, one health insurance representative, nine managers and thirteen from the academy. From the case study presented, fifty-five key messages were suggested. After removing duplicates, twenty-five were selected to assign